

**POST CONSTRUCTION RUN-OFF CONTROL**  
**TECHNICAL STANDARDS**  
**STRUCTURAL AND NON-STRUCTURAL BEST MANAGEMENT PRACTICES**  
**INTERIM GUIDANCE DOCUMENT**  
***VERSION 1.0***

**Prepared by**  
**City of Memphis**  
**Division of Public Works**

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## 1.0 INTRODUCTION

The City of Memphis has been issued an NPDES storm water permit by the Tennessee Department of Environment and Conservation (TDEC). This permit requires the City to implement a variety of programs to identify, eliminate, and prevent the discharge of pollutants into the storm drain system flowing through the City. On March 14, 2005, local engineers and developers were notified via letter that Post-Construction Best Management Practices (BMPs) will be required for new developments and significant redevelopments. A start-date of September 1, 2005 was established for the City to begin receiving these plan submittals.

The purpose of this document, *Post Construction Run-Off Control, Technical Standards, Structural and Non-Structural Best Management Practices, Interim Guidance Document* (Interim Guidance Document) is to provide interim guidance for the design, installation, and operation and maintenance of facilities that employ PCRC. This an evolving document and will be modified/revised with more specific design, installation, operation and maintenance standards as the City gains more experience in this area and to reflect changes in problem oriented priorities, permit conditions, and environmental regulations. To this end, the City will post the most current version of this Interim Guidance Document on the internet at [www.cityofmemphis.org](http://www.cityofmemphis.org) > Government > Public Works > Storm Water Information. It is the responsibility of the design engineer to obtain the most current version of this document.

PCRC shall consist of structural and/or non-structural Best Management Practices (BMPs) that shall be site specific and based on problem oriented priorities as determined by the City of Memphis Division of Public Works. BMPs shall be developed by the design engineer to remove contaminants from storm water to the maximum extent practical (MEP). MEP is a technology-based discharge standard established for Municipal Separate Storm Sewer Systems (MS4) required by §402(b) of the Clean Water Act. Installation, operation and maintenance procedures are required as part of the PCRC Plan submittals. The City of Memphis Division of Public Works is the approval authority for PCRC Plan submittals. Changes in the PCRC Plan may be required based on the review of the plan performed by the City. In addition, supporting data/supplemental information may be required.

A PCRC Plan submittal is required for all new developments and significant re-development sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The PCRC Plan is to be included with the plan set provided to the City of Memphis Division of Engineering. The PCRCP shall be signed and sealed by a Tennessee Registered Professional Engineer.

## 2.0 PROBLEM ORIENTED PRIORITIES

As stated in the March 14, 2005 letter, pollutant parameters to be addressed by all submitted PCRC Plans shall include the following for all sites within the City of Memphis:

- Litter
- Visible pollutants, such as sand, soil and grit that would discolor runoff
- Oil and other vehicle fluids
- Parameters listed in the TDEC 303(d) list for the water bodies into which the development discharges and for which the development could be a reasonable source.

## 3.0 PCRC PLAN SUBMITTALS

The PCRC Plan submittal shall be added as a new sheet to the plan submittal currently required by the City of Memphis Division of Engineering. The PCRC Plan shall be structured to include three categories of information: *General Information*, *Structural BMPs*, and *Non-Structural BMPs*. It is expected that the PCRC Plan will be a modified version of the Grading and Drainage Plan presently being submitted and that a combination of Structural and/or Non-Structural BMPs shall be employed. Structural BMPs shall include but not be limited to grass swales and detention/retention ponds. In-ground pre-manufactured water quality units will be evaluated on a case-by-case basis. Non-structural BMPs shall include but not be limited to administrative programs, street sweeping, employee-training, material/waste handling practices, and measures to isolate pollutants from storm water (such as putting a roof over gasoline pump islands.) Note that the PCRC Plan Review performed by the City will not cover non-storm water quality elements possibly related to the design such as load-bearing capacity, flooding potential, etc.

The following is a list of the minimum required *General Information* that shall be required for all PCRC Plan submittals:

1. Intended use of the development (*e.g.* single family residential, office park, *etc.*)
2. Vicinity map based on a USGS quadrangle (adjusted to appropriate scale).  
The map shall include:
  - site location and outline of the site boundaries.
  - outline of any upstream drainage basins that drain across the site
  - markings indicating the flow path of drainage leaving the site from the site location and ending at the Loosahatchie River, Wolf River, Nonconnah Creek, McKellar Lake, or Mississippi River.
3. Name of sub-basin where site is located.
4. Total site acreage.

5. Total site impervious area contacted by storm water (acres)
6. Expected pollutant sources
7. Grading and Drainage Plan showing storm water flow direction and BMP locations.

*For Structural BMPs:*

1. Scale drawings showing layout and basic construction materials.
2. Details showing unique design elements.
3. Technical references (*e.g.* ASTM, ASCE reports, WEF Design Manuals, *etc.*  
Note: product sales literature will not be accepted.)
4. Operation and maintenance requirements, including frequency of maintenance (*e.g.* cleaning) and proper disposal methods for removed materials (*e.g.* landfill).
5. Entity responsible for operation and maintenance after project is complete.

*For Non-Structural BMPs:*

1. Technical references (*e.g.* ASTM, ASCE reports, WEF Design Manuals, *etc.*  
Note: product sales literature will not be accepted. )
2. Operation and maintenance requirements, including frequency of maintenance (*e.g.* cleaning) and proper disposal methods for removed materials (*e.g.* landfill).
3. Entity responsible for operation and maintenance after project is complete.
4. Administrative procedures to reduce contaminant loading on surfaces that would come into contact with storm water.
5. Maintenance procedures to remove contaminants from surfaces that would come into contact with storm water (*e.g.* street sweepers, *etc.*)
6. Procedures to isolate contaminants to prevent them from contacting storm water (*e.g.* roof over garbage dumpster, *etc.*)
7. Drawing details showing unique design elements

In the near future, the City in cooperation with the engineering community will prepare a “standard PCRC plan” for use as a guide. The City of Memphis Division of Public Works will review and approve these plans. If you have any questions, please contact Don Hudgins at (901) 576-6720.